

# Claims

- [c1] A method of determining the palatability of a food, food stuff or veterinary biologic to an animal comprising: obtaining at least one animal; and, administering a discrimination learning procedure to an animal selected from said at least one animal wherein said discrimination learning procedure comprises using a food, food stuff or veterinary biologic.
- [c2] The method of claim 1 further comprising utilizing at least one stimulus preference test comprising:
- (a) presenting said animal with at least one distinct stimulus wherein each of said at least one distinct stimulus is associated with an identical reward;
  - (b) permitting said animal to choose from said at least one distinct stimulus, wherein choice of any one stimulus results in said identical reward;
  - (c) recording a preferred stimulus of said animal wherein said preferred stimulus is most frequently chosen by said animal or chosen at a greater response rate or chosen first; and,
  - (d) recording a non-preferred stimulus of said animal wherein said non-preferred stimulus is least frequently

chosen by said animal or chosen at a slower response rate or chosen secondly or later.

- [c3] The method of claim 1 further comprising utilizing at least one association session comprising:
- (a) presenting said animal with at least one stimulus associated with said food, food stuff or veterinary biologic; and,
  - (b) permitting said animal to choose from said at least one stimulus wherein any choice results in a reward of said food, food stuff or veterinary biologic associated with said any choice.

- [c4] The method of claim 1 wherein said administering said discrimination learning procedure comprises:
- (a) presenting said animal with a preferred stimulus and a plurality of non-preferred stimuli;
  - (b) permitting said animal to choose at least one stimulus selected from said preferred stimulus and said plurality of non-preferred stimuli wherein choice of any one of said non-preferred stimuli results in a reward of said food, food stuff or veterinary biologic associated with a corresponding said any one of said non-preferred stimulus and choice of a preferred stimulus results in no reward;
  - (c) recording said at least one stimulus chosen by said animal; and,

(d)repeating steps (a) through (c) to obtain discrimination conditioning of said animal.

[c5] The method of claim 4 further comprising establishing a preferred food, foodstuff, or veterinary biologic of said animal as said food, foodstuff, or veterinary biologic associated with a stimulus most frequently chosen or chosen most rapidly or chosen first or an association learned most rapidly by said animal.

[c6] The method of claim 5 further comprising establishing a rank order of preferred food, foodstuff, or veterinary biologic of said animal as an ordered list of decreasing preference of said food, foodstuff, or veterinary biologic associated with a stimulus most frequently chosen or chosen most rapidly or chosen first or an association learned most rapidly by said animal.

[c7] The method of claim 4 further comprising establishing a non-preferred food, foodstuff, or veterinary biologic of said animal as said food, food stuff or veterinary biologic associated with a stimulus least frequently chosen or chosen more slowly or chosen following a stimulus associated with said preferred food, food stuff or veterinary biologic or an association learned less rapidly.

[c8] The method of claim 7 further comprising establishing a

rank order of non-preferred food, foodstuff, or veterinary biologic of said animal as an ordered list of increasing preference of said food, food stuff or veterinary biologic associated with a stimulus least frequently chosen or chosen more slowly or chosen following a stimulus associated with said preferred food, food stuff or veterinary biologic or an association learned less rapidly.

[c9] The method of claim 4 further comprising utilizing a stabilization phase wherein steps (a) to (d) are repeated at least once in one session for at least one consecutive sessions.

[c10] The method of claim 1 further comprising utilizing a reversal phase comprising:

- (a) presenting said animal with a preferred stimulus and a plurality of non-preferred stimuli;
- (b) permitting said animal to choose a stimulus wherein choice of a non-preferred stimulus previously associated with said preferred food, food stuff or veterinary biologic results in no reward and choice of said preferred stimulus results in a reward of said food, a food stuff, or veterinary biologic not previously associated with said preferred stimulus;
- (c) recording a selected stimulus chosen by said animal or a latency to respond or an order of responses;
- (d) repeating steps (a) through (c) to obtain discrimina-

tion conditioning of said animal.

- [c11] The method of claim 10 further comprising establishing a preferred food, foodstuff, or veterinary biologic of said animal as said food, foodstuff, or veterinary biologic associated with a stimulus most frequently chosen by said animal or chosen most rapidly or chosen first or an association learned most rapidly.
- [c12] The method of claim 10 further comprising establishing a non-preferred food, foodstuff, or veterinary biologic of said animal as said food, food stuff or veterinary biologic associated with a stimulus least frequently chosen or chosen more slowly or chosen following a stimulus associated with said preferred food, food stuff or veterinary biologic or an association learned less rapidly.
- [c13] A system for determining the palatability of a food, food stuff or veterinary biologic to an animal comprising:  
means for obtaining at least one animal; and,  
means for administering a discrimination learning procedure to an animal selected from said at least one animal wherein said discrimination learning procedure comprises means for using a food, food stuff or veterinary biologic.
- [c14] The system of claim 13 further comprising means for

utilizing at least one stimulus preference test comprising:

- (a) means for presenting said animal with at least one distinct stimulus wherein each of said at least one distinct stimulus is associated with an identical reward;
- (b) means for permitting said animal to choose from said at least one distinct stimulus, wherein choice of any one stimulus results in said identical reward;
- (c) means for recording a preferred stimulus of said animal wherein said preferred stimulus is most frequently chosen by said animal or chosen at a greater response rate or chosen first; and,
- (d) means for recording a non-preferred stimulus of said animal wherein said non-preferred stimulus is least frequently chosen by said animal or chosen at a slower response rate or chosen secondly or later.

- [c15] The system of claim 13 further comprising means for utilizing at least one association session comprising:
- (a) means for presenting said animal with at least one stimulus associated with said food, food stuff or veterinary biologic; and,
  - (b) means for permitting said animal to choose from said at least one stimulus wherein any choice results in a reward of said food, food stuff or veterinary biologic associated with said any choice.

- [c16] The system of claim 13 wherein said means for administering said discrimination learning procedure comprises:
- (a) means for presenting said animal with a preferred stimulus and a plurality of non-preferred stimuli;
  - (b) means for permitting said animal to choose at least one stimulus selected from said preferred stimulus and said plurality of non-preferred stimuli wherein choice of any one of said non-preferred stimuli results in a reward of said food, food stuff or veterinary biologic associated with a corresponding said any one of said non-preferred stimulus and choice of a preferred stimulus results in no reward;
  - (c) means for recording said at least one stimulus chosen by said animal.
- [c17] The system of claim 16 further comprising means for establishing a preferred food, foodstuff, or veterinary biologic of said animal as said food, foodstuff, or veterinary biologic associated with a stimulus most frequently chosen or chosen most rapidly or chosen first or an association learned most rapidly by said animal.
- [c18] The system of claim 17 further comprising means for establishing a rank order of preferred food, foodstuff, or veterinary biologic of said animal as an ordered list of decreasing preference of said food, foodstuff, or veteri-

nary biologic associated with a stimulus most frequently chosen or chosen most rapidly or chosen first or an association learned most rapidly by said animal.

[c19] The system of claim 16 further comprising means for establishing a non-preferred food, foodstuff, or veterinary biologic of said animal as said food, food stuff or veterinary biologic associated with a stimulus least frequently chosen or chosen more slowly or chosen following a stimulus associated with said preferred food, food stuff or veterinary biologic or an association learned less rapidly.

[c20] The system of claim 19 further comprising means for establishing a rank order of non-preferred food, foodstuff, or veterinary biologic of said animal as an ordered list of increasing preference of said food, food stuff or veterinary biologic associated with a stimulus least frequently chosen or chosen more slowly or chosen following a stimulus associated with said preferred food, food stuff or veterinary biologic or an association learned less rapidly.

[c21] The system of claim 16 further comprising means for utilizing a stabilization phase.

[c22] The system of claim 13 further comprising means for



utilizing a reversal phase comprising:

- (a) means for presenting said animal with a preferred stimulus and a plurality of non-preferred stimuli;
- (b) means for permitting said animal to choose a stimulus wherein choice of a non-preferred stimulus previously associated with said preferred food, food stuff or veterinary biologic results in no reward and choice of said preferred stimulus results in a reward of said food, a food stuff, or veterinary biologic not previously associated with said preferred stimulus;
- (c) means for recording a selected stimulus chosen by said animal or a latency to respond or an order of responses.

[c23] The system of claim 22 further comprising means for establishing a preferred food, foodstuff, or veterinary biologic of said animal as said food, foodstuff, or veterinary biologic associated with a stimulus most frequently chosen by said animal or chosen most rapidly or chosen first or an association learned most rapidly.

[c24] The system of claim 22 further comprising means for establishing a non-preferred food, foodstuff, or veterinary biologic of said animal as said food, food stuff or veterinary biologic associated with a stimulus least frequently chosen or chosen more slowly or chosen following a stimulus associated with said preferred food, food stuff

or veterinary biologic or an association learned less rapidly.

[c25] A product created by process of determining the palatability of a food, food stuff or veterinary biologic to an animal comprising:

a composition comprising an enhanced palatability or more preferable to an animal wherein said composition is selected in accordance with the method of claim 1.

[c26] A product created by process of determining the palatability of a food, food stuff or veterinary biologic to an animal comprising:

a composition comprising a reduced palatability or less preferable to an animal wherein said composition is selected in accordance with the method of claim 1.